

# PATENT ABSTRACTS OF JAPAN

(11) Publication number : 2000-235078  
(43) Date of publication of application : 29.08.2000

(51) Int. Cl. G01T 1/20

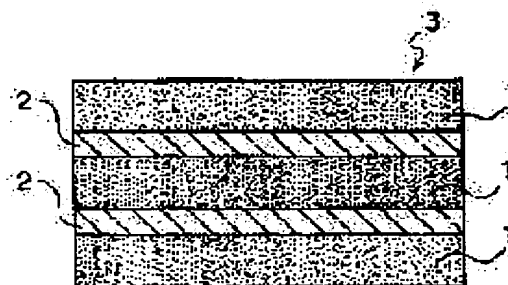
(21) Application number : 11-036257 (71) Applicant : TOSHIBA CORP  
(22) Date of filing : 15.02.1999 (72) Inventor : TAKAHARA TAKESHI  
SAITO AKIHISA  
KOYAIZU EIJI  
FUKUDA KOYO

## (54) RADIATION DETECTING STRUCTURAL BODY, AND RADIATION DETECTOR AND RADIATION INSPECTION DEVICE USING SAME

### (57) Abstract:

PROBLEM TO BE SOLVED: To effectively utilize luminescence as the whole scintillator by guiding effectively and easily light emitted in an inside of the scintillator into photodetector, in the case of constituting the scintillator using phosphor particles.

SOLUTION: In this radiation detecting structural body 3, a photoguide layer 2 comprising a material for transmitting light emitted from phosphor powder is laminated on a phosphor layer 1 comprising a powder solidified layer of the phosphor powder for absorbing a radiation to emit light. The required numbers of the phosphor layers 1 and the photoguide layers 2 are laminated to constitute the radiation detecting structural body 3. The structural body 3 is used for a radiation detector, for example, as a scintillator. The radiation detector has the scintillator comprising the structural body 3, and a photoelectric conversion element such as a photodiode for receiving the light from the scintillator to convert and output of the light into an electric output.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

**BEST AVAILABLE COPY**